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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/941,132 09/30/97 TANAKA

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EXAMINER

ZITOMER, F

ART UNIT

PAPER NUMBER

1713

DATE MAILED:

12/07/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/941,132

Applicant(s)

Tanaka et al.

Examiner

Fred Zitomer

Group Art Unit

1713

☒ Responsive to communication(s) filed on Oct 14, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-3 and 7-19 is/are pending in the application.

Of the above, claim(s) 1-3, 7, and 8 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 9-19 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1713

1.

This responds to the communication of October 14, 1999. No claim is allowed.

2.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3.

Claims 9-19 are rejected under 35 U.S.C. § 103 as being unpatentable over Yasuyuki et al., EP-A- O 584 597 taken with Kondo et al., U.S. Patent 4,208,490, or Burlett et al., U.S. 5,118,546, or Hayashi et al., U.S. 4,528,340.

The claimed invention relates to grafting and epoxidizing natural rubber which has been deproteinized. All of the procedures are generally known and the present coupling is deemed obvious for the additive effect. More directly, Yasuyuki teaches deproteinizing natural rubber to nitrogen levels below 0.02% by weight to remove allergens and enhance physical properties [Table 1, Example 1, claim 2, page 2, line 52 - page 3, line 11]. "By almost completely eliminating non-rubber components, an advantageous material for producing rubber products which suffer from little energy loss and have excellent mechanical properties, improved crepe characteristics and improved aging resistance, can be provided." [page 3, lines 3-6]. The deproteinized rubber also possesses excellent processing and mechanical characteristics [page 24, lines 1-27]. Kondo teaches enhancing the physical properties and appearance of natural rubber by grafting with methylmethacrylate [column 2, line 61 - column 3, line 49; column 4, lines 24-28]. There is no

Art Unit: 1713

limitation on the proportion of rubber to grafted monomer, however, a 3-60 % range of rubber content by weight is preferred [column 3, lines 30-34] which appears to fall within the present graft ratio range of 26.5-36.7. It is generally known in the art to epoxidize rubber to enhance properties such as hydrophilicity. Hayashi e.g. teaches epoxidizing rubber in the range of 5-60% [column 3, lines 3-25] while Burlett teaches epoxidizing rubber in the range of 15-85% [column 2, lines 5-17]. Kondo or Hayashi or Burlett differs from the claimed invention by not disclosing deproteinized rubber.

It would have been obvious to deproteinize rubber before grafting and/or epoxidation in the expectation of reducing allergens and enhancing the physical and mechanical properties thereof because Yasuyuki teaches that deproteinization affords reductions in allergens and enhancements in physical and mechanical properties for the same class of rubbers used by Kondo or Hayashi or Burlett.

Applicant's arguments filed October 14, 1999 have been fully considered but they are not persuasive. The gist of said arguments is that the Miyamoto declaration shows that deproteinization has solved a problem associated with either grafting or epoxidizing rubber. However, as stated in prior Office actions even if unexpected results have been obtained the argument is not compelling because obviousness does not require a showing of different motivation. See e.g. *Ex parte Obiaya*, 227 USPQ 58,60; *In re Nolan*, 193 USPQ 641 (CCPA1977); and *In re Dillon*, 16 USPQ2d, 1897 (CAFC 1990). In this regard it is well settled "...that when a claim recites using an old composition or structure and the use is directed to a

Art Unit: 1713

result or property of that composition or structure, then the claim is anticipated." In re May, 197 USPQ 601, 607 (CCPA 1978); MPEP 2112.02.

4.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Zitomer whose telephone number is (703) 308-2461. The examiner can normally be reached Monday through Friday from 7:30 AM to 4:00 PM.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.


FRED ZITOMER
PRIMARY EXAMINER
GROUP 1710

Zitomer/fz
December 2, 1999